



EBARA

Wastewater Pump Products





EBARA water and wastewater pumps are an integral part within the wastewater treatment process and cycle of cleaning our used water.

Why Treat Wastewater?

Water scarcity is among the most serious crises facing the world. It is under constant threat due to climate change, explosive population growth and waste. Even though the world is two-thirds water, most of it is not potable.

The world's supply of fresh water is slowly running dry. Forty percent of the world's population is already reeling under today's water crisis: an issue of both scarcity and access. The growing water shortage will make food scarcer, potable water less accessible and water-borne diseases even more rampant. Currently, one in eight people do not have access to safe drinking water; almost three times the population of the United States. 3.575 million people die each year from water borne illness, both caused by lack of wastewater treatment and sanitation; the world's largest cause of infection. The number of people expected to suffer under these circumstances is predicted to reach more than 500 million by the year 2025.

Over the past decade, the United States has been plagued by horrific flooding and drought caused by less predictable geographically interdependent weather patterns and long periods of record high temperatures, large snowfalls/melts and persistent rains. The severe swings in weather conditions have been close together and drastic.

Recycling Our "Used" Water

With water scarcity increasing, the continued unpredictability of volatile weather patterns and constraints in federal funding for municipality infrastructure, the need to recycle and reuse our water is an abundantly clear necessity. One of the most promising efforts to stem the global water crisis is industrial and municipal water recycling – the reuse of treated wastewater for beneficial purposes such as agricultural and landscape irrigation, industrial processes, toilet flushing, or replenishing a groundwater basin.

Wastewater is water that comes from homes, businesses and industries that includes substances such as run-off, human waste, food scraps, oils, soaps and chemicals from the water from sinks, showers, bathtubs, toilets, washing machines and dishwashers. Wastewater also includes storm runoff that contains harmful substances that wash off roads, parking lots and rooftops that can harm our rivers and lakes and cannot not be used without some treatment.

Wastewater treatment is a multi-stage process to renovate wastewater before it re-enters a body of water, is applied to the land or is reused. As the world endures major water challenges, **EBARA is committed** to engineering and producing water and wastewater pumps and products integral to the wastewater reclamation, treatment and recycling processes.



EBARA products: Engineered for Performance.

Founded in 1912, EBARA Corporation is recognized as a world leader in the design, development and manufacture of industrial machinery with a predominant focus on the production of pumps, pumping systems and compressors for a wide range of applications. EBARA Corporation now operates 77 subsidiaries and 11 affiliate companies in 14 countries under three principal business groups: Fluid Machinery and Systems, Environmental Engineering and Precision Machinery.

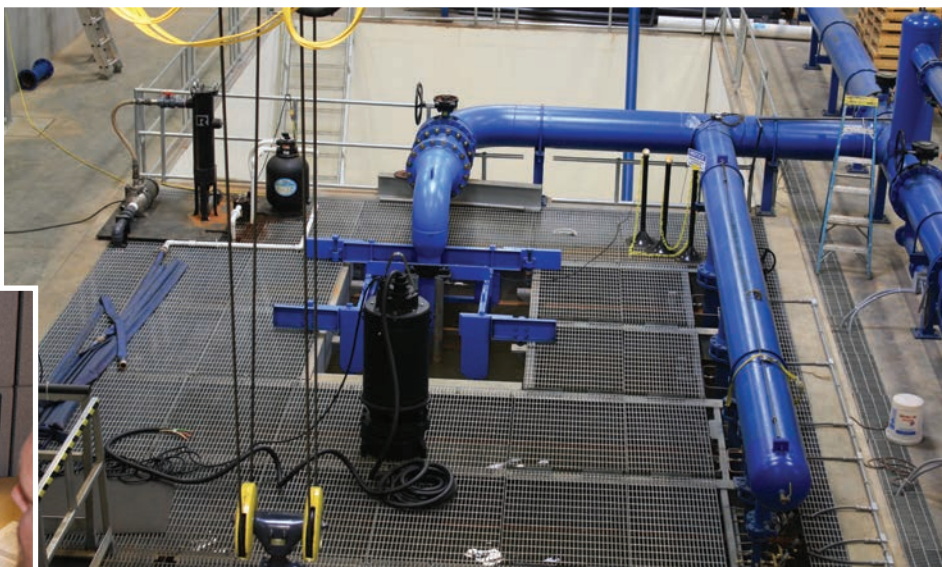


The variety of pump types and sizes produced by the EBARA Fluid Machinery and Systems Group is tremendous, ranging from fractional horsepower recirculation pumps to vertical mixed flow pumps with horsepower's into the thousands. EBARA's engineering and manufacturing capabilities are best demonstrated by the Futtsu manufacturing plant. The plant is focused on the production of high pressure, large scale pumps and systems targeting specific applications in oil and gas, nuclear power, water and wastewater infrastructure industries. EBARA's Fujisawa plant is one of the most technologically advanced manufacturing plants for the mass production of small size pumps; including the D-series of cast iron pumps.

EBARA Pumps Americas Corporation, the US sales and service subsidiary, provides engineered pump, pump products and related services for the water, waste-water, commercial, municipal, energy and power industries offering reliable product knowledge, application expertise and responsive support including aftermarket replacement parts services.

Recognizing the continued strain on water and wastewater facilities and infrastructures with increased maintenance, energy, and environmental demands and costs, EBARA strives to deploy the best water and wastewater pumps, pump products, and technologies to meet these requirements.





With horsepower ranges up to 500 HP and capacities to 35,000 GPM, EBARA's cast iron submersible pumps meet a wide range of industrial, municipal, flood control, and residential water and wastewater applications. The cast iron line of pumps includes submersible sewage, submersible sump, semi-vortex, vortex, grinder, non-clog, and dry pit models.











EBARA completed a 36,000 square foot expansion of its Rock Hill facilities in 2009, doubling its size and allowing larger pumps and products to be built, tested and shipped from the South Carolina location. The Rock Hill facility includes a new 81,000 gallon computer-aided testing area capable of handling large-scale pump models in both wet and dry pit configurations up to 350 HP. The expanded facility houses a large, state-of-the-art training facility to accommodate pump product training services with access to amenities such as guest offices and facility services.

EBARA maintains inventory that allows it to assemble, test, and ship ½ to 150 HP cast iron submersible pumps in 5 to 14 working days, and offer quick shipments of other standard product lines as well.

EBARA service and parts are available through an extensive service network throughout North America to assist customers in replacement of parts or complete pumps and motors.



EBARA products: designed for performance.

EBARA Model	Description	Flow (GPM)	Head (feet)	HP	Discharge Size (inches)	Maximum Temp	Type of Pumpage
	EPD, Optima High quality stainless steel submersible sump and drainage pump	3 to 86	9 to 61	1/3 to 1 1/2	1 1/4 to 1 1/2	122°F / 50°C	water, semi-dirty water; solids to 3/8"
	DWU, DWXU High quality stainless steel submersible sump and effluent pump	8 to 235	8 to 74	1/2 to 3	2	104°F / 40°C	water, wastewater; solids to 2"
	DSU, DSHU Durable cast iron submersible sump, drainage pump	8 to 390	8 to 126	1/2 to 10	2, 3, 4	122°F / 50°C up to 176°F / 80° C	(hot) water, wastewater, treated sewage
	DVSU, DVSHU Durable cast iron submersible pump with semi-vortex impeller	7 to 250	10 to 80	1/2 to 5	2, 3	122°F / 50°C up to 176°F / 80° C	(hot) water, wastewater, abrasive, suspended solids to 2 1/4"
	DWP, DWPM Portable, slim-line top discharge submersible dewatering pumps	30 to 2000	5 to 340	1.3 to 58	2, 3, 4, 6, 8	104°F / 40°C	severe corrosive, contaminated, abrasive fluids
	DMLEU Durable cast iron submersible non-clog, single channel impeller pump	55 to 1345	12 to 136	3 to 30	3, 4, 6	104°F / 40°C	water, wastewater, effluent; solids to 3"
	EFQT, EFQU Self-priming trash pump; large range of sizes with the ability to handle solids and light slurries effectively	to 3400	to 210	1 to 125	2 to 12	—	water, wastewater, sewage, slurry; solids to 1 1/4", 3"
	DGUII, DGFU Submersible grinder pump with heavy duty high chrome iron grinder system reduce solid sizes for smooth, non-clogging flow.	5 to 80	27 to 148	2 to 5	1 1/4, 2	104°F / 40°C	water, wastewater, sewage, solids to 3"
	DLU Durable cast iron submersible pump with semi-open impellers with large wear area and open passageways	13 to 430	9 to 66	1 to 5	2, 3, 4	104°F / 40°C	wastewater, sewage, stringy, abrasive materials solids to 3"
	Durable cast iron submersible pump with vortex impeller large solids handling capabilities	16 to 430	10 to 50	DVU: 1 to 5	2, 3, 4	104°F / 40°C	wastewater, sewage, abrasive, suspended solids to 4", 5"
		16 to 1200	13 to 121	DVFU: 2 to 30	2, 3, 4, 6		
	Cast iron submersible pump with high efficiency impeller and large solids handling capabilities; dry and wet pit configurations	13 to 4000	7 to 243	DLFU: 2 to 60	2 to 12	104°F / 40°C	water, wastewater, sewage, fibrous solids to 3 1/4"
		80 to 4000	20 to 243	DDLFU (dry pit): 15 to 60	4 to 12		
	DSC4, DSCA4, DSC Large cast iron submersible pump available with semi-open or enclosed impellers with large passageways, dry and wet pit configurations	530 to 35000	8 to 300	40 to 500	6 to 24	104°F / 40°C	wastewater, sewage, stringy, abrasive materials solids to 8 1/8"

Applications

Residential	Commercial	Municipal	Industrial	Wastewater	Water	Sump	Effluent	Sewage	Drainage	Irrigation	Construction	Transfer	Flood control	Page No.
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Model EPD, Optima

submersible stainless steel sump, drainage



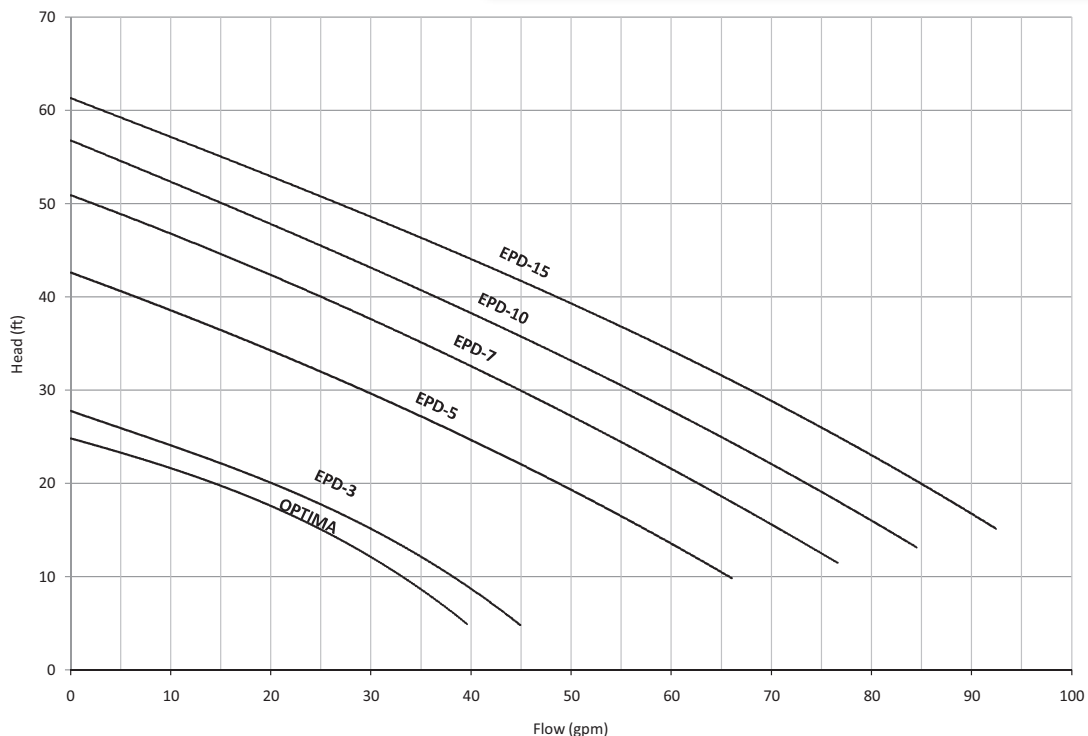
Features

- High quality stainless steel (*Note: Optima has Noryl impeller*)
- Single and three phase models available
- Air filled, continuous duty rated, permanent split capacitor motors
- Built-in thermal protection with automatic reset (Single Phase Only)
- Built to operate whether fully or partially submerged
- Oil lubricated double mechanical shaft seal 1/2 - 1 1/2 HP models
- 20' UL/CSA approved, water resistant #16 AWG cord
- Optima and EPD slimline automatic models can operate in a 12" diameter basin or 8" x 8" square basin



**Note: UL and CSA listed; Model Optima UL certified only.*

EPD, Optima selection chart



Standard Specifications

		Automatic	Manual
Design	Discharge	1/3 HP - 1 1/4" 1/2 HP and 3/4 HP - 1 1/2"	1/2 HP - 1 1/4" 1/2 HP through 1 1/2 HP - 1 1/2"
	Horsepower	1/3, 1/2, and 3/4 HP	1/3, 1/2, 3/4, 1, and 1 1/2 HP
	Capacity	2.7 to 72 GPM	2.7 to 86 GPM
	Total head	9.3 to 57 feet	9.3 to 61 feet
	Max. Liquid temp.	122°F/50°C (140°F/60°C intermittent duty)	
	Solids	3/8" Spherical (2% by concentration)	
Speed	3600 RPM		
Materials	Casing	304L Stainless Steel	
	Impeller	304L Stainless Steel*	
	Shaft	303 Stainless Steel	
	Motor Frame	304L Stainless Steel	
	Fastener	304L Stainless Steel	
Construction	Shaft Seal (Double)**		
	Material – Upper	NBR Fitted Carbon/Ceramic - 1/2, 3/4, 1, and 1 1/2 HP	
	Material – Lower	FPM Fitted Silicon Carbide/Silicon Carbide - 1/2, 3/4, 1, and 1 1/2 HP	
	Impeller Type	Semi-Open	
	Bearing	Sealed Ball Bearing	
	Motor	Air-filled, Insulation Class F, 2 Pole, Rated Continuous Duty—Permanent Split Capacitor	
	Single Phase	115 V	115 V
	Three Phase		230V or 460V
	Motor Protection†	Built-in Motor Protection with Auto Reset (Single Phase Only)	
	Power Cord	Single Phase	UL/CSA SJTOW-A with ECS No. 250 cap plug with grounding pin – 20 Ft. Length Rated 15 Amp 125V – NEMA 5-15P
Three Phase		UL/CSA STOW-A water resistant, stripped end jacket removed 2" and conductor stripped 5/8" – 20 Ft. length	
Automatic Float Switch	Mechanical Float		

Notes: * ITEM NO. Optima-3AS1, Optima-3MS1 – Impeller material is Thermo Plastic-Noryl GFN2
 ** Optima-3 & EPD-3 – 1/3 HP Shaft Seal is single mechanical seal (lower side) and 1 lip seal (upper side)
 – Mechanical Seal material: Carbon/Ceramic/FPM
 † Three Phase models require user to provide motor protection

Model DWU, DWXU

submersible stainless steel sump, effluent



Features

- High quality stainless steel
- Single and three phase models available
- Motor is 2 pole submersible, rated continuous duty
- Class F motor insulation
- 104°F maximum fluid temperature continuous operation, fully submerged; 140° F intermittent operation
- Automatic and manual operation
- Auto float switch is mechanical/non-mercury
- NPT thread discharge or 150 lb ANSI flange
- Double mechanical seal with viton elastomers
- Shielded, prelubricated ball bearings 50,000 hour
- Single channel and vortex impellers
- Thermal overloads

Standard Specifications

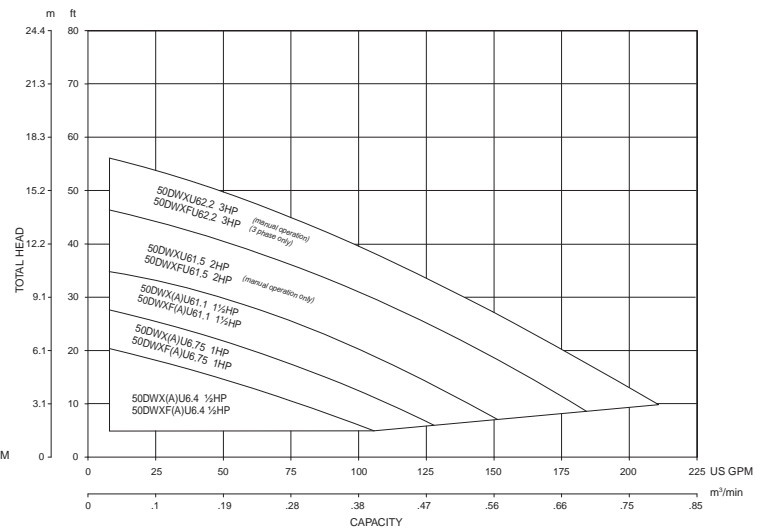
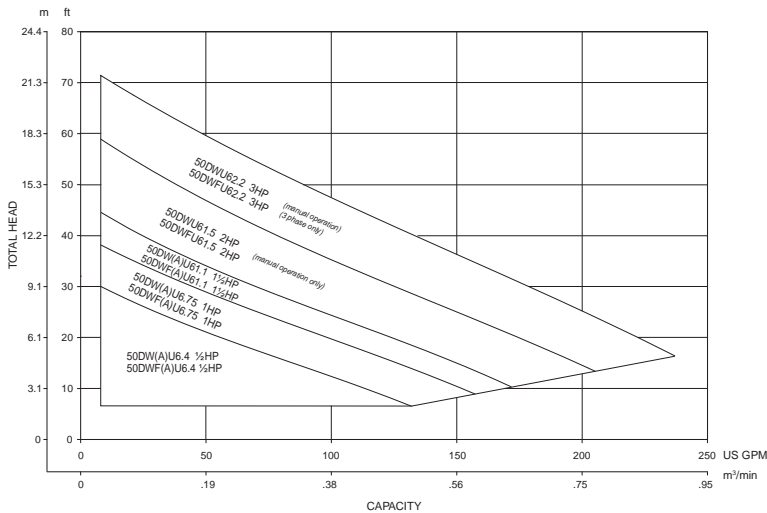
		Automatic	Manual
Design	Discharge	2" NPT or 2" ANSI Flanged	
	Horsepower	1/2 HP to 1 1/2 HP	1/2 HP to 3 HP
	Capacity	8 to 180 GPM	8 to 235 GPM
	Total head	8 to 54 feet	8 to 74 feet
	Max. Liquid temp.	104°F (40°C)	
	Solids	2" Spherical	
Speed	3600 RPM		
Materials	Casing	304L Stainless Steel	
	Impeller	304L Stainless Steel	
	Shaft	304L Stainless Steel	
	Motor Frame	304L Stainless Steel	
	Fastener	304L Stainless Steel	
	Construction	Mechanical Seal	Double Mechanical Seal
Material – Upper		Carbon/Ceramic/NBR	
Material – Lower		Silicon Carbide/Silicon Carbide/FPM	
Impeller Type		Single Channel/Vortex	
Bearing		Sealed Ball Bearing	
Motor		Air-filled, Insulation Class F	
Single Phase		115 V (1/2, - 1HP)	115 V (1/2, 1HP), 230V 230V (1/2, - 1 1/2HP)
Three Phase			230V or 460V
Motor Protection†		Built-in Overload Protection (Single phase models)	
		Submersible Cable 25 ft. Consult factory for additional cable lengths.	
Accessories	QDC System		

Notes: * 2HP, 1-phase and 3HP, 3-phase units have a cast iron intermediate bracket.

DWU, DWXU selection chart



*Note: Model DW(A)(F)U, DWX(A)(F)U is listed by the Canadian Standards Association (CSA) as certified (3HP excluded).



Model DSU, DSHU

submersible cast iron sump



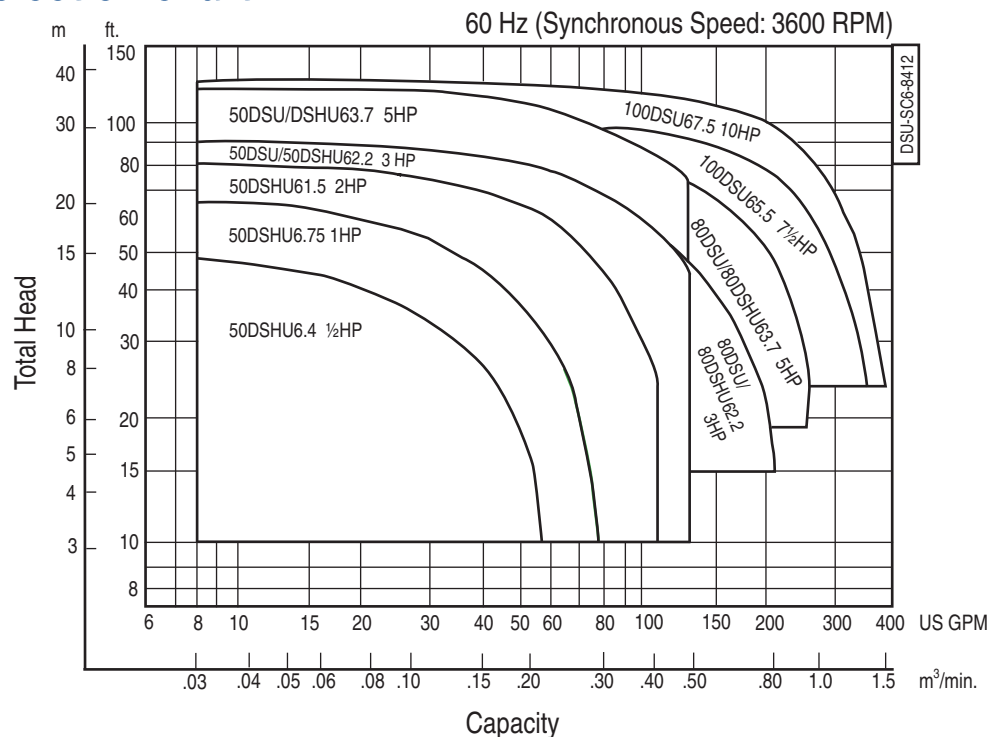
Features

- **Air filled, heavy duty motor, rated for 20 starts/hour**, dissipates heat easily, operates cooler with higher efficiencies; longer service life with lower operating costs
- **Built in motor protection autocut** protects motor against overheat, out of phase, single phasing, and no load; saves money on costly motor replacement
- **60,000 hour bearings** ensure long dependable operation; lower maintenance costs
- **Semi-open impellers** offer the best design for handling stringy and/or abrasive materials due to the large wear area and open passageways, providing durability and longer life
- **Double mechanical seals** – silicon carbide lower seals, carbon/ceramic upper - hard faced upper and lower seals operate in an oil bath; providing longer service life and lower maintenance costs
- **Small and light weight** portability; easy to transport for temporary installations
- **Available for slide rail installations** provides ease of maintenance for small sump type installations

Standard Specifications

		DSU	DSHU (Hot Water pumps)
Design	Discharge	2, 3, 4 inch	2, 3 inch
	Horsepower	3 to 10HP	1/2 to 5HP
	Capacity	8 to 390 GPM	8 to 250 GPM
	Total head	10 to 126 feet	8 to 126 feet
	Max.Liquid temp.	122°F/50°C	158°F/70°C - 1/2, 1 HP 176°F/80°C - 2 to 5HP 200°F/93°C - limited to 10 minutes
Speed	3600 RPM		
Materials	Casing	Cast Iron	
	Impeller	Ductile Iron	Cast Iron (1/2 to 2HP) Ductile Iron (3, 5HP)
	Shaft	403 Stainless Steel	
	Motor Frame	Cast Iron	
	Fastener	304 Stainless Steel	
Construction	Mechanical Seal	Double Mechanical Seal	
	Material – Upper	Carbon/Ceramic	Silicon Carbide/Silicon Carbide
	Material – Lower	Silicon Carbide/Silicon Carbide	Silicon Carbide/Silicon Carbide
	Impeller Type	Semi-open	
	Bearing	Prelubricated Ball Bearing	
	Motor	Air-filled, Insulation Class F	Class H (1/2, 1 HP) Class F (2, 3, 5HP)
	Three Phase	208/230V/460V	208/230V, 460V - Single voltage
Motor Protection	Built-in Auto Cut - overload out of phase, single phasing protection	Built-in Overload Protection	
Submersible Cable	33 ft. standard cable length, Optional 66 ft.		
Accessories		Cast Iron discharge elbow (3 to 5HP)	Cast iron companion flange with NPT thread (1/2 to 2HP)
		Optional QDC System	

DSU, DSHU selection chart



Model DVSU, DVSHU

submersible cast iron semi-vortex sewage



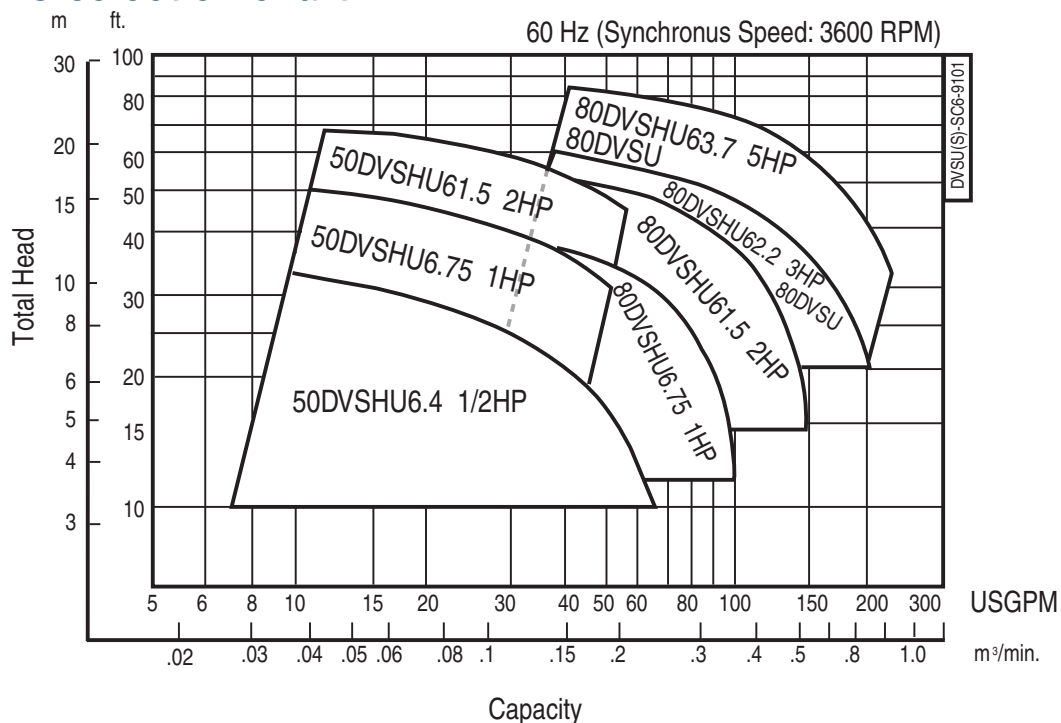
Standard Specifications

		DVSU	DVSHU (Hot Water pumps)
Design	Discharge	3 inch	2, 3 inch
	Horsepower	3 to 5HP	1/2 to 5HP
	Capacity	29 to 240 GPM	5 to 240 GPM
	Total head	20 to 80 feet	10 to 75 feet
	Max.Liquid temp.	122°F/50°C	158°F/70°C - 1/2, 1 HP 176°F/80°C - 2 to 5HP 200°F/93°C - limited to 10 minutes
Speed	3600 RPM		
Materials	Casing	Cast Iron	
	Impeller	Cast Iron (1/2 to 2HP)	
	Shaft	403 Stainless Steel	
	Motor Frame	Cast Iron	
	Fastener	304 Stainless Steel	
Construction	Mechanical Seal	Double Mechanical Seal	
	Material – Upper	Carbon/Ceramic	Silicon Carbide/Silicon Carbide
	Material – Lower	Silicon Carbide/Silicon Carbide	Silicon Carbide/Silicon Carbide
	Impeller Type	Semi-open vortex	
	Bearing	Prelubricated Ball Bearing	
	Motor	Air-filled, Insulation Class F	Insulation Class H (1/2, 1, 2 HP)
	Three Phase	208/230V, 460V	Class F (3, 5HP)
	Motor Protection	Built-in Auto Cut - overload out of phase, single phasing protection	Built-in Overload Protection
	Submersible Cable	33 ft. standard cable length, Optional 66 ft.	
	Accessories		Cast Iron discharge elbow (3 to 5HP)
		Optional QDC System	

Features

- **Air filled, heavy duty motor, rated for 20 starts/hour**, dissipates heat easily, operates cooler with higher efficiencies; longer service life with lower operating costs
- **Built in motor protection autocut** protects motor against overheat, out of phase, single phasing, and no load; saves money on costly motor replacement
- **60,000 hour bearings** ensure long dependable operation; lower maintenance costs
- **Large solids handling capabilities** prevents clogging
- **Semi-open vortex type recessed impeller**, vortex action prevents clogging and handles stringy material better, high reliability, and lowers maintenance costs
- **Double mechanical seals** – silicon carbide lower seals, carbon/ceramic upper - hard faced upper and lower seals operate in an oil bath; providing longer service life and lower maintenance costs
- **Available for slide rail installations** provides ease of maintenance for small sump type installations

DVSU, DVSHU selection chart





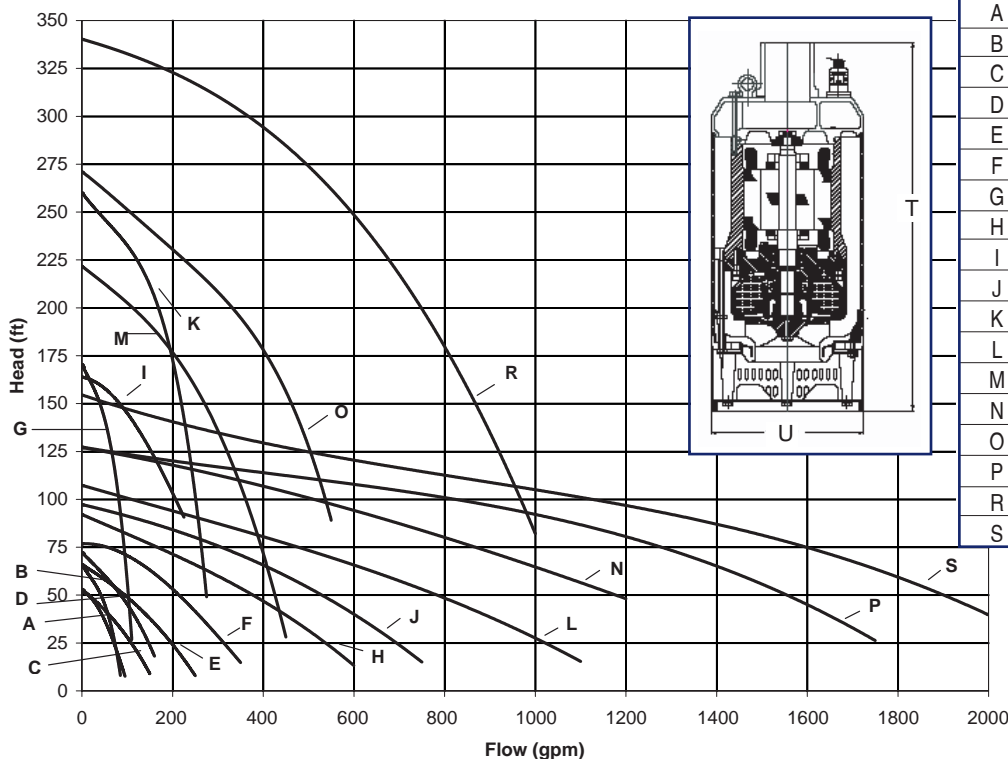
Features

- Heavy duty motor
 - Oversized shaft and bearings
 - Available in most voltage / frequency combination
 - 2- pole squirrel cage induction type continuous rated, Class F insulation
 - Maximum 15 starts per hour
- Tandem UPPER & LOWER mechanical seals - Pressure compensated oil chamber for optimal seal life
- Unique SAND GUARD seal housing prevents sand/debris from collecting on outer seal face during pump operation
- Standard sacrificial zinc anodes provide protection from galvanic corrosion
- Cable sealing system seals power cord AND individual leads in the gland assembly
- SS impeller, shaft, strainer, hardware and outlet for maximum corrosion resistance
- Hardened 410 SS impeller for abrasive applications
- 316 SS impeller for corrosive applications (optional)
- Field adjustable rubber lined diffuser and wear plates provide for optimum pump efficiency

Standard Specifications

		Standard construction	Stainless Steel
Design	Discharge	2, 3, 4, 6, 8 inch	
	Horsepower	1.3 to 58HP	
	Capacity	30 to 2000 GPM	
	Total head	5 to 34 feet	
	Max.Liquid temp.	104°F/40°C	
Materials	Inner casing		
	1.3 to 58 HP	Epoxy coated aluminum	316 SS
	58HP DWPM	Cast iron	316 SS
	Outer casing		
	1.3 to 10 HP	Epoxy coated aluminum	316 SS
	16 to 58 HP	Epoxy coated carbon steel	316 SS
	58HP DWPM	Cast iron	316 SS
	Shaft	431 SS	
	Impeller		
	Open mixed flow	410 SS (optional 316SS)	
Diffuser/Wearplate	Nitrile rubber coated		
Strainer	304 SS	316 SS	
Impeller nut		410 SS	
Mechanical Seal		Tandem Mechanical Seal	
	Material – Upper	Tungsten Carbide/ Tungsten Carbide	Upper seal is lip seal only, for 1.3 - 2 HP models
	Material – Lower	Tungsten Carbide/ Tungsten Carbide	
Bearing	Upper	Single row deep groove with high temperature grease containing special anti-corrosion additive	
	Lower	Single row deep groove with high temperature grease containing special anti-corrosion additive	
	1.3 to 10 HP	Single row deep groove with high temperature grease containing special anti-corrosion additive	
	16 to 58 HP	Double angular contact lower bearings; enclosed with high temperature grease containing special anti-corrosion additive	

DWP, DWPM selection chart / Dimensions



Curve	Model	Disch. NPT	T	U
A	50DWP 1.3HP	2	12-1/4	6-1/4
B	50DWPM 1.5HP	2	12-1/4	6-1/4
C	50DWP 2HP	2	13-1/2	6-1/4
D	50DWPM 2HP	2	13-1/2	6-1/4
E	80DWP 3HP	3	26-1/4	7-1/2
F	80DWP 5HP	3	28-1/2	7-1/2
G	80DWPM 5HP*	3	28-1/2	10-3/4
H	100DWP 7.5HP	4	28-1/2	10-3/4
I	80DWPM 10HP*	3	29-1/2	10-3/4
J	100DWP 10HP	4	29-1/2	10-3/4
K	100DWPM 16HP	4	33-1/4	14-1/4
L	150DWP 16HP	6	33-1/4	14-1/4
M	100DWPM 25HP	4	36	15-3/4
N	150DWP 25HP	6	36	15-3/4
O	150DWPM 35HP	6	40-1/2	15-3/4
P	200DWP 35HP	8	40-1/2	15-3/4
R	150DWPM 58HP	6	41-1/2	17-1/8
S	200DWP 58HP	8	41-1/2	15-3/4

* 2-stage pumps

Model DMLEU

submersible single channel sewage



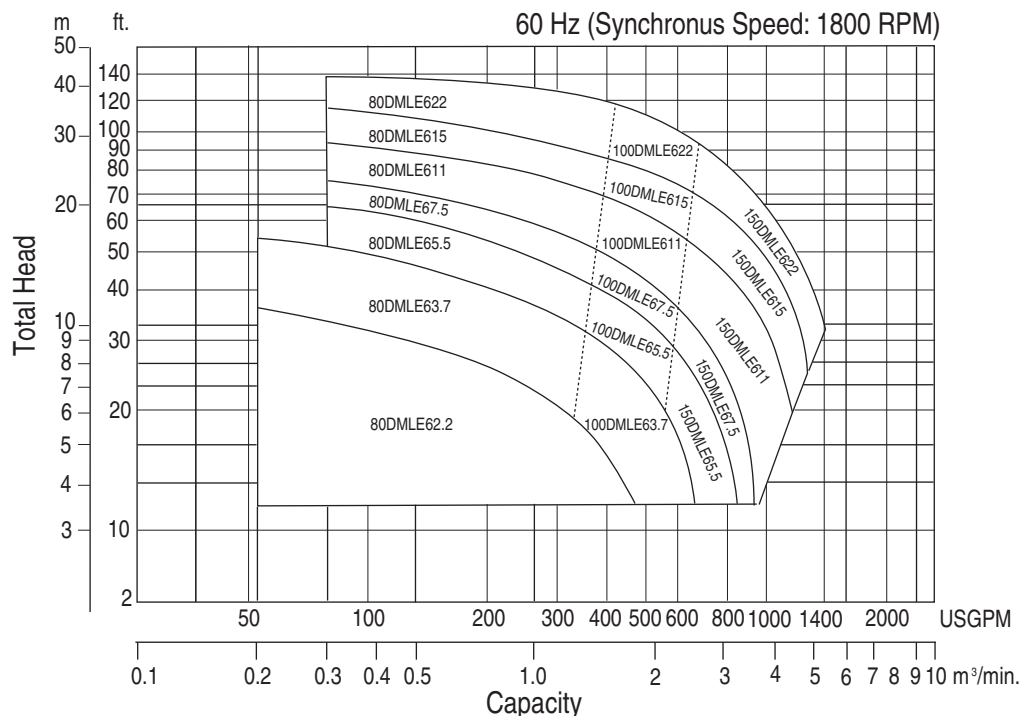
Features

- **Air filled, Class F insulated, heavy duty motor, rated for 20 starts/hour**, dissipates heat easily, operates cooler with higher efficiencies; longer service life with lower operating costs
- **Built in motor protection autocut** protects motor against overheat, out of phase, single phasing, and no load; saves money on costly motor replacement
- **60,000 hour bearings** ensure long dependable operation; lower maintenance costs
- **Large solids handling capabilities** prevents clogging
- **Non-clog, single channel impeller has 3" spherical passage**; prevents clogging; high efficiency and saves energy
- **Double mechanical seals** – silicon carbide lower seals, carbon/ceramic upper - hard faced upper and lower seals operate in an oil bath; providing longer service life and lower maintenance costs
- **Available for slide rail installations** provides ease of maintenance for small sump type installations

Standard Specifications

Design	Discharge	3, 4, 6 inch
	Horsepower	3 to 30HP
	Capacity	55 to 1345 GPM
	Total head	12 to 136 feet
	Max.Liquid temp.	104°F/40°C
Speed	1800 RPM	
Materials	Casing	Cast Iron
	Impeller	Cast Iron
	Shaft	403 Stainless Steel
	Motor Frame	Cast Iron
	Fastener	304 Stainless Steel
Construction	Mechanical Seal	
	Double Mechanical Seal	
	Material – Upper	Carbon/Ceramic
	Material – Lower	Silicon Carbide/Silicon Carbide
	Impeller Type	Non-clog single channel enclosed
	Bearing	Prelubricated Ball Bearing
	Motor	Air-filled, dry submersible, Class F Insulation
	Three Phase	208/230V, 460V
	Service Factor	1.15
	Motor Protection	Built-in Auto cut (3HP model) Thermal Detector – Klixons Mechanical seal leak detector – internal oil probe
Submersible Cable	33 ft. standard cable length, Optional 66 ft.	
Accessories	Optional QDC System	

DMLEU selection chart



Model EFQT, EFQU

self-priming trash pump



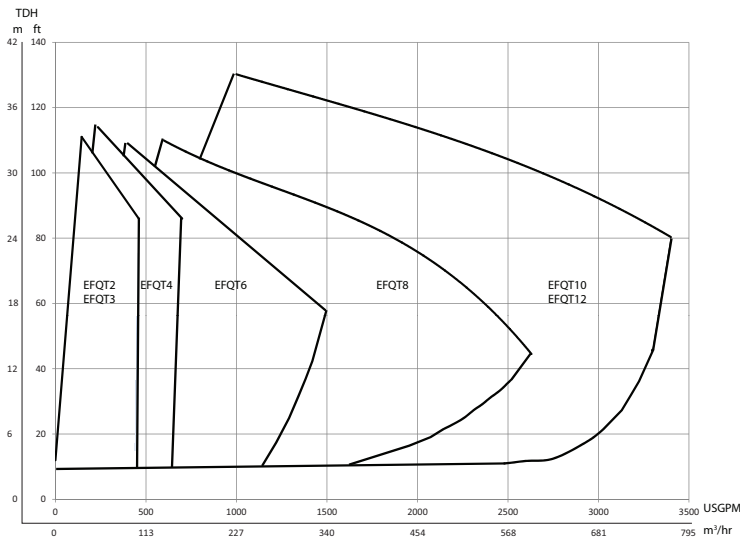
Features

- **Superior solids handling capabilities** – 3" solids handling (EFQT), 1.25" solids (EFQU)
- **Easy maintenance** – Removeable cover plates and rotating elements for quick inspection and cleaning of the pump without having to remove it from the piping.
- Backside pump-out vanes reduce pressure on the seal and exclude solids from the seal area.
- External shimless wear plate adjustment.
- **Large solids handling capabilities** prevents clogging.
- Multivane, semi-open, high efficiency impellers.
- **Robust cast iron casing** with ductile iron impeller standard.
- Cartridge seals with Silicon Carbide/Silicon Carbide faces; design allows for quick replacement and ease of installation.
- EFQU series pumps are dimensionally interchangeable with the EFQT series pumps in the 3", 4" & 6" sizes.

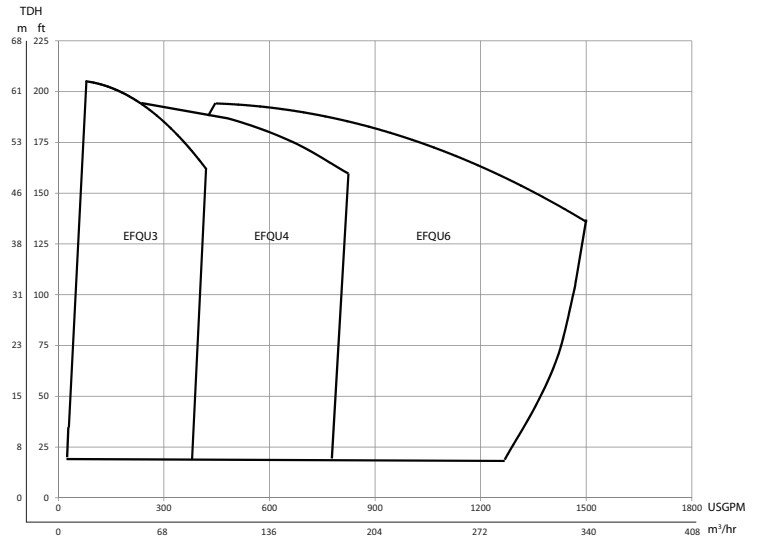
Standard Specifications

		EFQT	EFQU
Design	Discharge	2 to 12 inch Flanged, F.F. ANSI	3 to 6 inch Flanged, F.F. ANSI
	Horsepower	1 to 125 HP	1½ to 75HP
Performance	Capacity	to 3400 GPM	to 1500 GPM
	Total head	to 130 feet	to 210 feet
Maximum Solid Diameter		3 inch	1.25 inch
Speed		650 to 2150 RPM	
Standard Materials			
Casing		Cast Iron A48 CL 30	
Impeller		Ductile iron A 60-40-18	
Wear Plate		Carbon Steel SAE 1020	
Cover Plate		Cast Iron A48 CL 30	
Shaft		Alloy Steel 4140	
Bearing Housing		Cast Iron A48 CL 30	
Flap Valve		Reinforced Neoprene	
Seal Sleeve		316 Stainless Steel	
Flanges		Cast Iron A48 CL 30	
O-rings		Buna	
Mechanical Seal		Silicon Carbide/Silicon Carbide , Viton, 316 Stainless Steel	
Options			
Tungsten Carbide Seals			
Base-plate mounting, coupling guards			
Horizontal V - belt			
Vertical V- belt			
Flex coupled			
TEFC or OPD motors			
Diesel Engine operation, trailer or skid mounted			
NPT Threaded suction and discharge connections			
<i>*Note: Alternate construction materials available on request including 304ss, 316ss and CD4 MCU</i>			

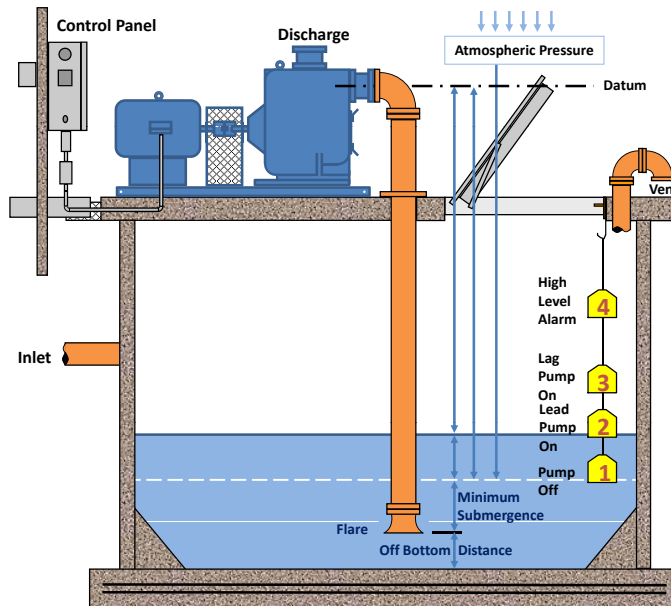
EFQT selection chart



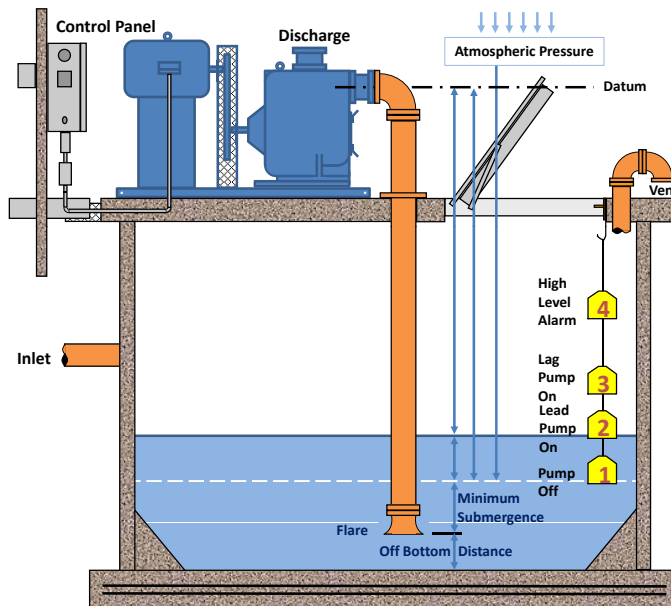
EFQU selection chart



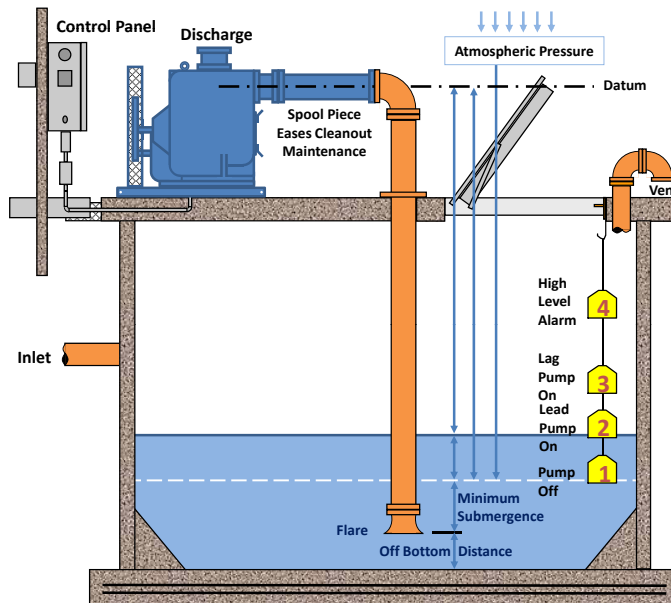
Flex Coupled



Vertical V-Belt



Horizontal V-Belt





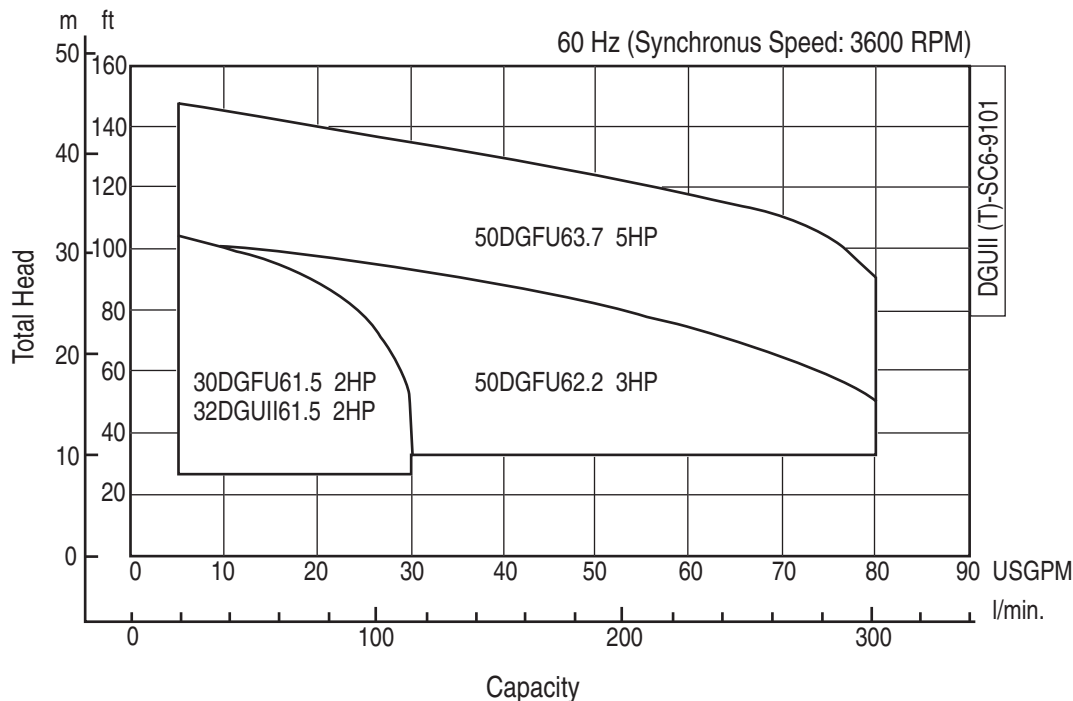
Features

- **Heavy duty high chrome iron grinder system** - powerful blades reduce solids size for smooth, non-clogging flow
- **Reversible grinder ring** provides longer service life and less maintenance
- **Air filled, Class F insulated, heavy duty motor, rated for 20 starts/hour**, dissipates heat easily, operates cooler with higher efficiencies; longer service life with lower operating costs
- **Built-in motor protection**; (DGUII models) protects motor against overheating, out-of-phase, single phasing, and no load; (DGFU models) provide overtemp and seal fail protection; saving money on costly motor replacement
- **60,000 hour bearings** ensures long dependable operation; lower maintenance costs
- **Semi-open vortex type recessed impeller**; vortex action prevents clogging and handles stringy material better vs moving pumpage through impeller vanes; provides durability, high reliability, and lowers maintenance costs
- **Double mechanical seals** – upper and lower seals operate in an oil bath; providing longer service life and lower maintenance costs
- **Small and light weight portability**; easy to transport for temporary installations

Standard Specifications

		DGUII	DGFU
Design	Discharge	1 1/4 inch	1 1/4, 2 inch
	Horsepower	2HP (<i>single phase</i>)	2 to 5HP
	Capacity	5 to 30 GPM	5 to 80 GPM
	Total head	27 to 112 feet	27 to 148 feet
	Max.Liquid temp.	104°F/40°C	
Speed		3600 RPM	
Materials	Casing	Cast Iron	
	Impeller	Cast Iron	
	Grinder Impeller	High Chrome Cast Iron HRC 60	
	Grinder Disk	High Chrome Cast Iron HRC 60	
	Shaft	403 Stainless Steel	
	Motor Frame	Cast Iron	
Construction	Mechanical Seal	Double Mechanical Seal	
	Material – Upper	Carbon/Ceramic	
	Material – Lower	Silicon Carbide/Silicon Carbide	
	Impeller Type	Semi-open vortex	
	Bearing		
	Upper/Lower	Prelubricated Ball Bearing	
	Motor	Air-filled, Insulation Class F	Insulation Class F Optional: FM Explosion Proof Class 1, Division 1, Group C, D
	Single Phase	208/230V	
	Three Phase	208/230V/460V	
	Motor Protection	Built-in Auto Cut - overload no load, out of phase, and single phasing protection	Built-in Thermal Detector - Klixon Built-in Mechanical Seal Leakage
Submersible Cable		33 ft. standard cable length, Optional 66 ft.	
Accessories		Optional QDC System	

DGUII, DGFU selection chart





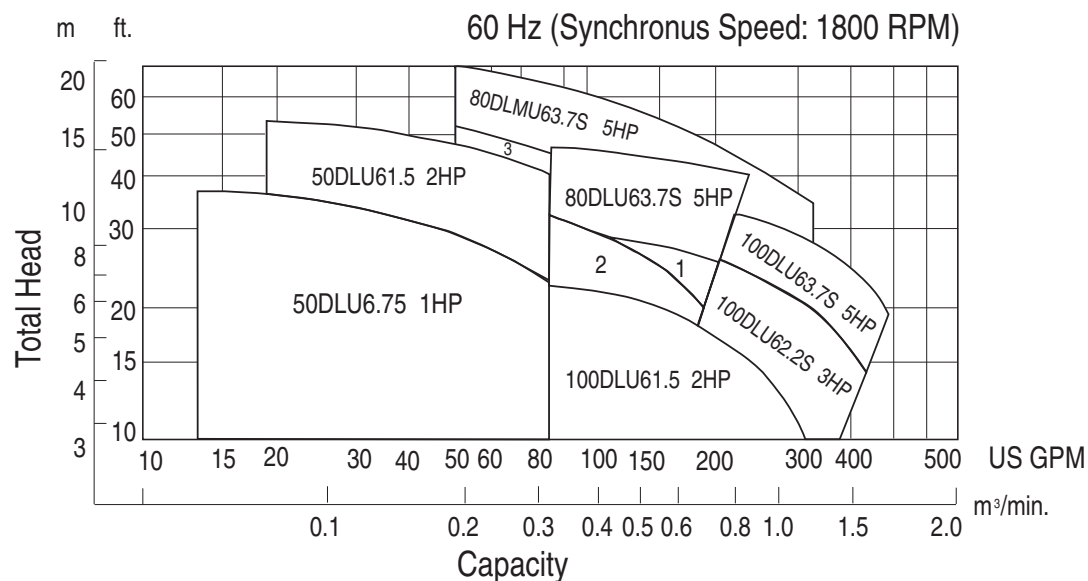
Features

- **Air filled, Class F insulated, heavy duty motor, rated for 20 starts/hour**, dissipates heat easily, operates cooler with higher efficiencies; longer service life with lower operating costs
- **Built in motor protection with autocut** protects motor against overheat, out of phase, single phasing, and no load; saves money on costly motor replacement
- **60,000 hour bearings** ensure long dependable operation; lower maintenance costs
- **Large solids handling capabilities** prevents clogging
- **Semi-open impellers**; offer the best design for handling stringy and/or abrasive materials better due to large wear area and open passageways, providing durability and longer life
- **Double mechanical seals** – silicon carbide lower seals, carbon/ceramic upper - hard faced upper and lower seals operate in an oil bath; providing longer service life and lower maintenance costs
- **Available for slide rail installations** provides ease of maintenance for small sump type installations

Standard Specifications

Design	Discharge	2, 3, 4 inch
	Horsepower	1 to 5HP, Single Phase 1 to 2 HP, Three Phase
	Capacity	13 to 430 GPM
	Total head	9 to 66 feet
	Max.Liquid temp.	104°F/40°C
Speed	1800 RPM	
Materials	Casing	Cast Iron
	Impeller	Cast Iron
	Shaft	403 Stainless Steel
	Motor Frame	Cast Iron
	Fastener	304 Stainless Steel
Construction	Mechanical Seal	
	Double Mechanical Seal	
	Material – Upper	Carbon/Ceramic
	Material – Lower	Silicon Carbide/Silicon Carbide
	Impeller Type	Semi-open
	Bearing	Prelubricated Ball Bearing
	Motor	Air-filled, Insulation Class F
	Single Phase	208/230V
	Three Phase	208/230V, 460V
	Service Factor	1.15
Motor Protection	Built-in Auto cut - overload, out of phase, single phasing protection	
Submersible Cable	33 ft. standard cable length, Optional 66 ft.	
Accessories	Optional QDC System	

DLU selection chart



- 1 80DLU62.2S 3HP
- 2 80DLMU61.5 2HP
- 3 80DLMU62.2S 3HP

Model DVU, DVFU

Standard Specifications, DVU

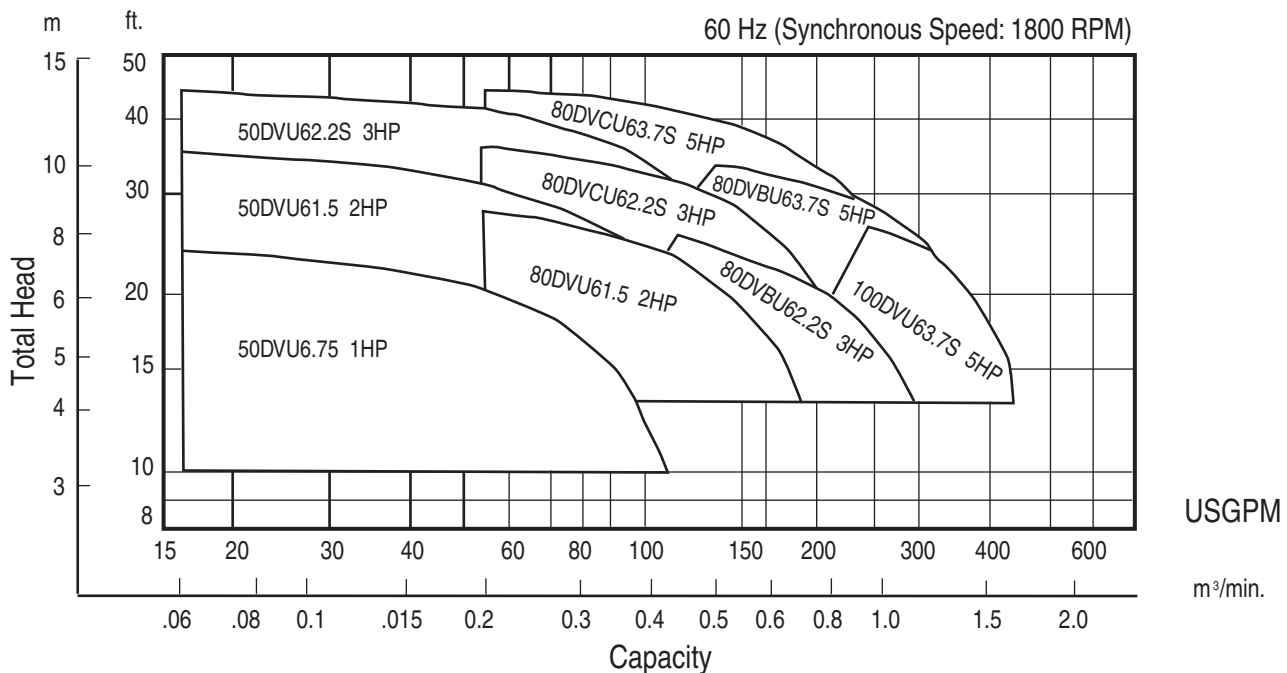
Design	Discharge	2, 3, 4 inch
	Horsepower	1 to 5HP, Single Phase 1 to 2 HP, Three Phase
	Capacity	16 to 430 GPM
	Total head	10 to 50 feet
	Max.Liquid temp.	104°F/40°C
Speed		1800 RPM
Materials	Casing	Cast Iron
	Impeller	Cast Iron
	Shaft	403 Stainless Steel
	Motor Frame	Cast Iron
	Fastener	304 Stainless Steel
Construction	Mechanical Seal	
	Double Mechanical Seal	
	Material – Upper	Carbon/Ceramic
	Material – Lower	Silicon Carbide/Silicon Carbide
	Impeller Type	Semi-open Recessed Vortex
	Bearing	Prelubricated Ball Bearing
	Motor	Air-filled, Insulation 2-5HP=Class F Insulation, 7.5-60HP=Class H Insulation
	Single Phase	208/230V
	Three Phase	208/230V, 460V
	Service Factor	1.15
	Motor Protection	Built-in Auto cut - overload, no load, out of phase, single phasing protection
	Submersible Cable	33 ft. standard cable length, Optional 66 ft.
Accessories	Optional QDC System	

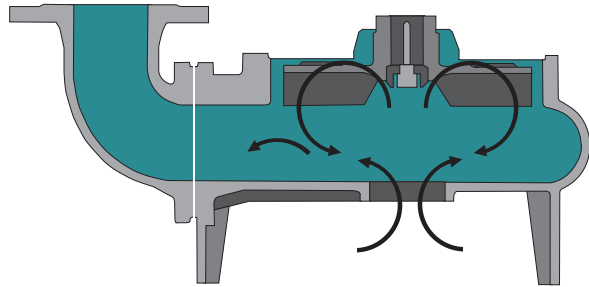
Features

- **Air filled, heavy duty motor, rated for 20 starts/hour**, dissipates heat easily, operates cooler with higher efficiencies; longer service life with lower operating costs
- **Built-in motor protection with autocut**, protects motor against overheating, single phasing, and no load; saves money on costly motor replacement
- **Molded cable** prevents capillary action; reduces maintenance costs
- **60,000 hour bearings**; ensures long, dependable operation and lowers maintenance costs
- **Large solids handling capabilities** prevents clogging
- **Semi-open vortex type recessed impeller**; vortex action prevents clogging and handles stringy material better vs moving pumpage through impeller vanes; provides durability, high reliability, and lowers maintenance costs
- **High quality stainless steel shaft**; provides high tensile strength, corrosion resistance, longer life, and lower maintenance costs
- **Double mechanical seals**-silicon carbide lower seals, carbon/ceramic upper - hard faced upper and lower seals operate in an oil bath; providing longer service life and lower maintenance costs
- High wire to water efficiencies reduced power consumption; reduced cost of operation
- **Available for slide rail installations** provides ease of maintenance for small sump type installations
- Three phase, FM explosion proof, Class 1, Div. 1, Group C & D available in DVFMU series 2 HP and above



DVU selection chart



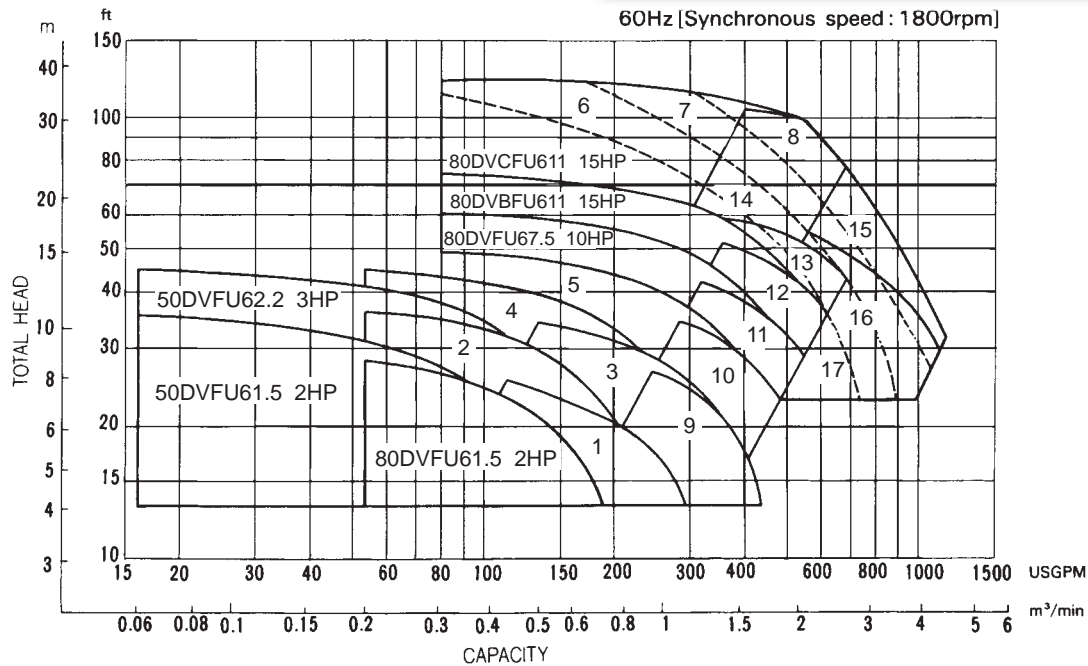


Semi-Open Vortex Impeller Design

- Semi-open vortex type recessed impeller; vortex action prevents clogging and handles stringy material better vs moving pumpage through impeller vanes; provides durability, high reliability, and lowers maintenance costs

Standard Specifications, DVFU		
Design	Discharge Horsepower Capacity Total head Max.Liquid temp.	2, 3, 4, 6 inch 2 to 30HP 16 to 1200 GPM 13 to 121 feet 104°F/40°C
Speed		1800 RPM
Materials	Casing Impeller Shaft Motor Frame Fastener	Cast Iron Cast Iron 403 Stainless Steel, 2 to 5HP 420 Stainless Steel, 7½ to 30HP Cast Iron 304 Stainless Steel
Construction	Mechanical Seal - Double Material – Upper Material – Lower Impeller Type Ball Bearing Motor	Mechanical Seal Carbon/Ceramic Silicon Carbide/Silicon Carbide Semi-opne Recessed Vortex Bearing Prelubricated 2-5HP=Class F Insulation, 7.5-60HP=Class H Insulation
	Three Phase Service Factor Motor Protection	<i>Optional:</i> FM Explosion Proof Class 1, Division 1, Group C, D 208/230V, 460V 1.15 Built-in Thermal Detector - Klixon Built-in Mechanical Seal Leakage
Submersible Cable		2 to 5HP - 33 ft. standard cable length 7½ to 30HP - 50 ft. standard cable length Optional _____ ft. (customer specified)
Accessories		Optional QDC System

DVFU selection chart



- | | |
|-------------------|---------------------|
| 1 80DVBFU62.2 3HP | 10 100DVFU65.5 7HP |
| 2 80DVCFU62.2 3HP | 11 100DVFU67.5 10HP |
| 3 80DVBFU63.7 5HP | 12 100DVBFU611 15HP |
| 4 80DVCFU63.7 5HP | 13 100DVCFU611 |
| 5 80DVFU65.5 7HP | 14 100DVCFU615 |
| 6 80DVFU615 20HP | 15 150DVCFU622 |
| 7 80DVFU618 25HP | 16 150DVBFU622 |
| 8 80DVFU622 30HP | 17 150DVBFU622 15HP |
| 9 100DVFU63.7 5HP | |

Model DLFU, DLKFU, DDLFU



K-Series, Model DLKFU – Features

Model DLKFU series pumps are designed to tackle clogging challenges with enhanced passage capabilities for handling of fibrous waste. The design features address the most common reasons for clogging caused by fibrous materials:

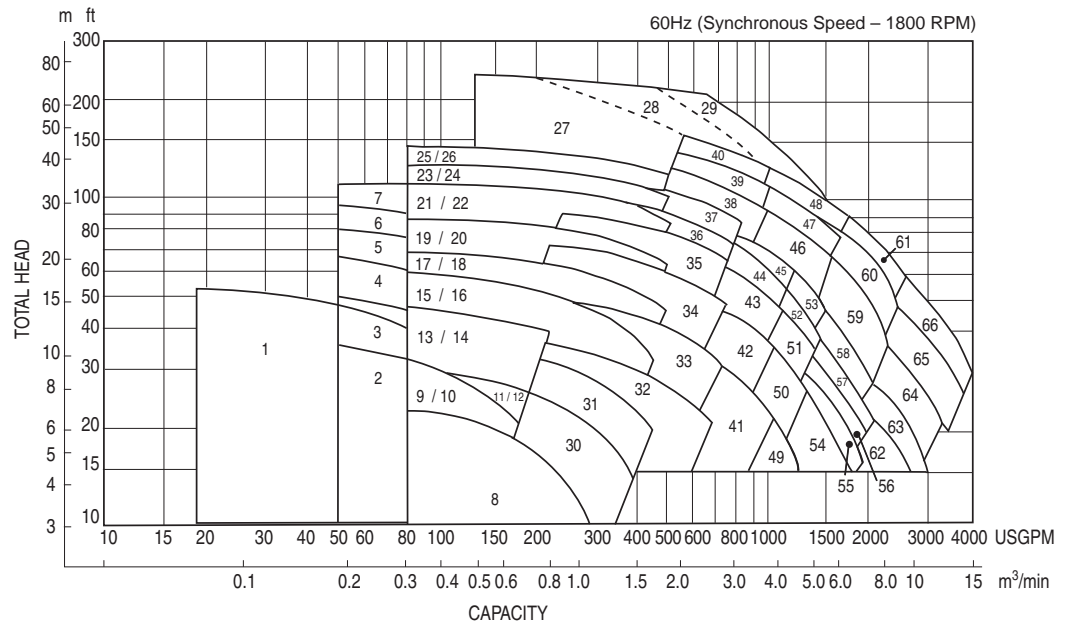
- Reduces material caught on the vane tips
- Increases inlet pressure which keeps debris moving instead of recirculating
- E-liminator groove disrupts the accumulation of fibrous debris.

DLFU selection chart

1 50DLFU61.5 2HP	34 100DLFU611 15HP
2 80DLMFU61.5 2HP	35 100DLFU615 20HP
3 80DLMFU62.2 3HP	36 100DLFU618 25HP
4 80DLMFU63.7 5HP	37 100DLFU622 30HP
5 80DLMFU65.5 7½HP	38 150DLFU630 40HP
6 80DLCMFU67.5 10HP	39 150DLFU637 50HP
7 80DLCMFU611 15HP	40 150DLFU645 60HP
8 100DLFU61.5 2HP	41 150DLFU67.5 10HP
9 80DLFU61.5 2HP	42 150DLFU611 15HP
10 100DLMFU61.5 2HP	43 150DLFU615 20HP
11 80DLFU62.2 3HP	44 150DLFU618 25HP
12 100DLMFU62.2 3HP	45 150DLFU622 30HP
13 80DLFU63.7 5HP	46 200DLFU630 40HP
14 100DLMFU63.7 5HP	47 200DLFU637 50HP
15 80DLFU65.5 7½HP	48 200DLFU645 60HP
16 100DLMFU65.5 7½HP	49 200DLFU67.5 10HP
17 80DLFU67.5 10HP	50 200DLFU611 15HP
18 100DLMFU67.5 10HP	51 200DLFU615 20HP
19 80DLFU611 15HP	52 200DLFU618 25HP
20 100DLMFU611 15HP	53 200DLFU622 30HP
21 80DLFU615 20HP	54 250DLFU611 15HP
22 100DLMFU615 20HP	55 250DLFU615 20HP
23 80DLFU618 25HP	56 250DLFU615 20HP
24 100DLMFU618 25HP	57 250DLFU618 25HP
25 80DLFU622 30HP	58 250DLFU622 30HP
26 100DLMFU622 30HP	59 250DLFU630 40HP
27 100DLFU630 40HP	60 250DLFU637 50HP
28 100DLFU637 50HP	61 250DLFU645 60HP
29 100DLFU645 60HP	62 300DLFU618 25HP
30 100DLFU62.2 3HP	63 300DLFU622 30HP
31 100DLFU63.7 5HP	64 300DLFU630 40HP
32 100DLFU65.5 7½HP	65 300DLFU637 50HP
33 100DLFU67.5 10HP	66 300DLFU645 60HP

Standard Specifications, DLFU, DLKFU

Design	Discharge	2, 3, 4, 6, 8, 10, 12 inch
	Horsepower	2 to 60
	Capacity	13 to 4000 GPM
	Total head	7 to 243 feet
	Max. Liquid temp.	104°F/40°C
Speed	1800 RPM	
Materials	Casing	Cast Iron
	Impeller	Cast Iron (2 to 60HP) Ductile Iron (150-300DLFU, 40 to 60HP)
	Shaft	403 Stainless Steel, 2 to 5HP 420 Stainless Steel, 7½ to 60HP
	Motor Frame	Cast Iron
	Fastener	304 Stainless Steel
Construction	Mechanical Seal	Double Mechanical Seal
	Material – Upper	Carbon/Ceramic
	Material – Lower	Optional: Tungsten Carbide/Tungsten/Carbide Silicon Carbide/Silicon Carbide, 2 to 60HP Optional: Tungsten Carbide/Tungsten/Carbide Tungsten Carbide/Tungsten Carbide, 150-300DLFU, 50 & 60 HP
	Impeller Type	Semi-open, 2 to 30HP Enclosed, 40 to 60HP
	Bearing	Prelubricated Ball Bearing
	Motor	2-5HP=Class F Insulation, 7.5-60HP=Class H Insulation Optional: FM Explosion Proof Class 1, Division 1, Group C, D
	Three Phase	208/230V, 460V
	Service Factor	1.15
	Motor Protection	Built-in Thermal Detector - Klixon Mechanical Seal Leakage - Float Switch
	Submersible Cable	2 to 5HP - 33 ft. standard cable length 7½ to 60HP - 50 ft. standard cable length Optional _____ ft. (customer specified)
Accessories	Optional QDC System	

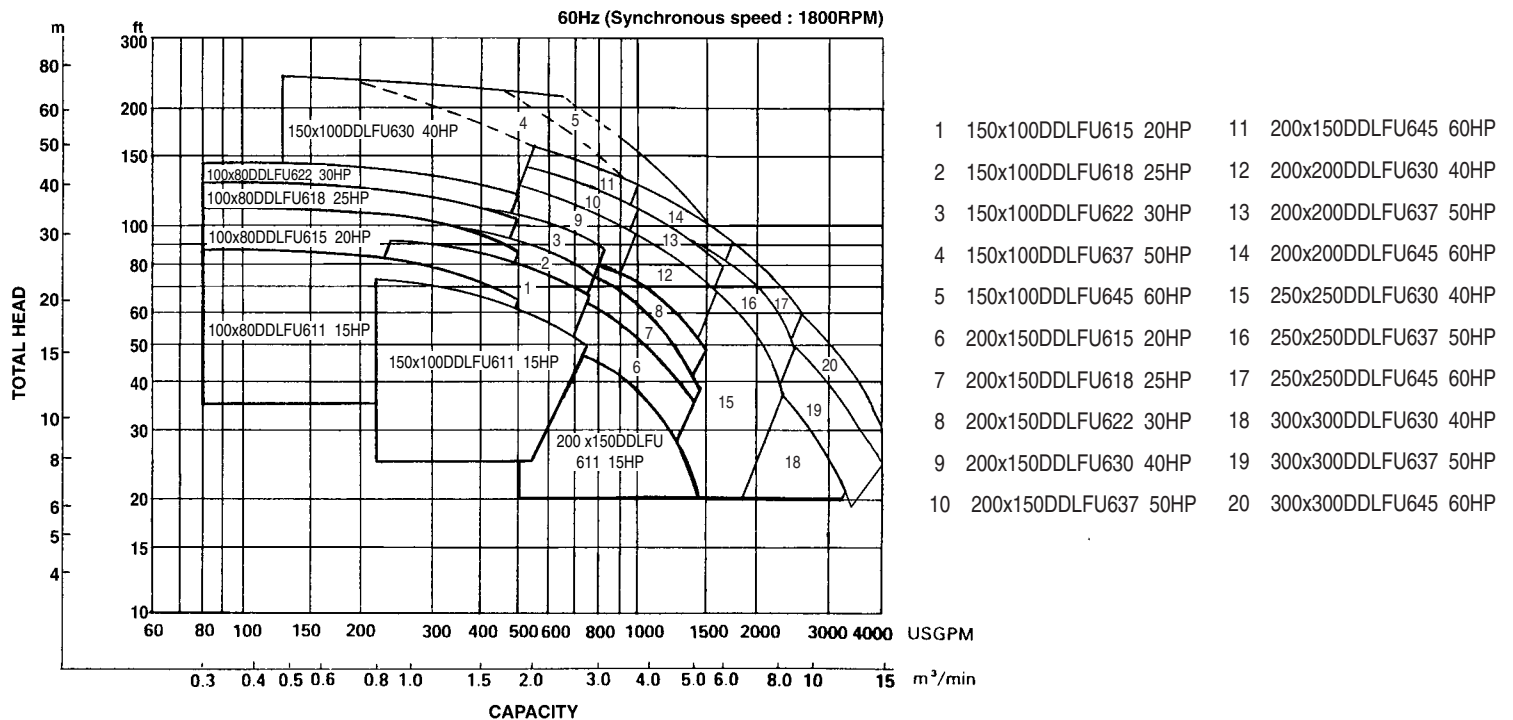


Please note: Overlap in coverage is designated by the two numbers; for example "9 / 10". Refer to the legend left for the specific model numbers.



Standard Specifications, DDLFU		
Design	Discharge	4"×3", 6"×4", 8"×6", 8"×8", 10"×10", 12"×12"
	Horsepower	15 to 60HP
	Capacity	80 to 4000 GPM
	Total head	20 to 243 feet
	Max.Liquid temp.	104°F/40°C
Speed	1800 RPM	
Materials	Casing	Cast Iron
	Impeller	Cast Iron
	Shaft	420 Stainless Steel
	Motor Frame	Cast Iron
	Fastener	304 Stainless Steel
Construction	Mechanical Seal	
	Double Mechanical Seal – Tandem Arrangement	
	Material – Upper	Carbon/Ceramic
		<i>Optional:</i> Tungsten Carbide/Tungsten/Carbide
	Material – Lower	Silicon Carbide/Silicon Carbide
		<i>Optional:</i> Tungsten Carbide/Tungsten/Carbide
	Impeller Type	Semi-open for 15 to 30HP Enclosed for 40 to 60HP
	Bearing	Prelubricated Ball Bearing
	Motor	7.5-60HP=Class H Insulation <i>Optional:</i> FM Explosion Proof Class 1, Division 1, Group C, D
	Three Phase	208/230V, 460V
Service Factor	1.15	
Motor Protection	Built-in Thermal Detector - Klixon Mechanical Seal Leakage - Float Switch	
Submersible Cable	50 ft. standard cable length Optional _____ ft. (customer specified)	

DDLFU selection chart



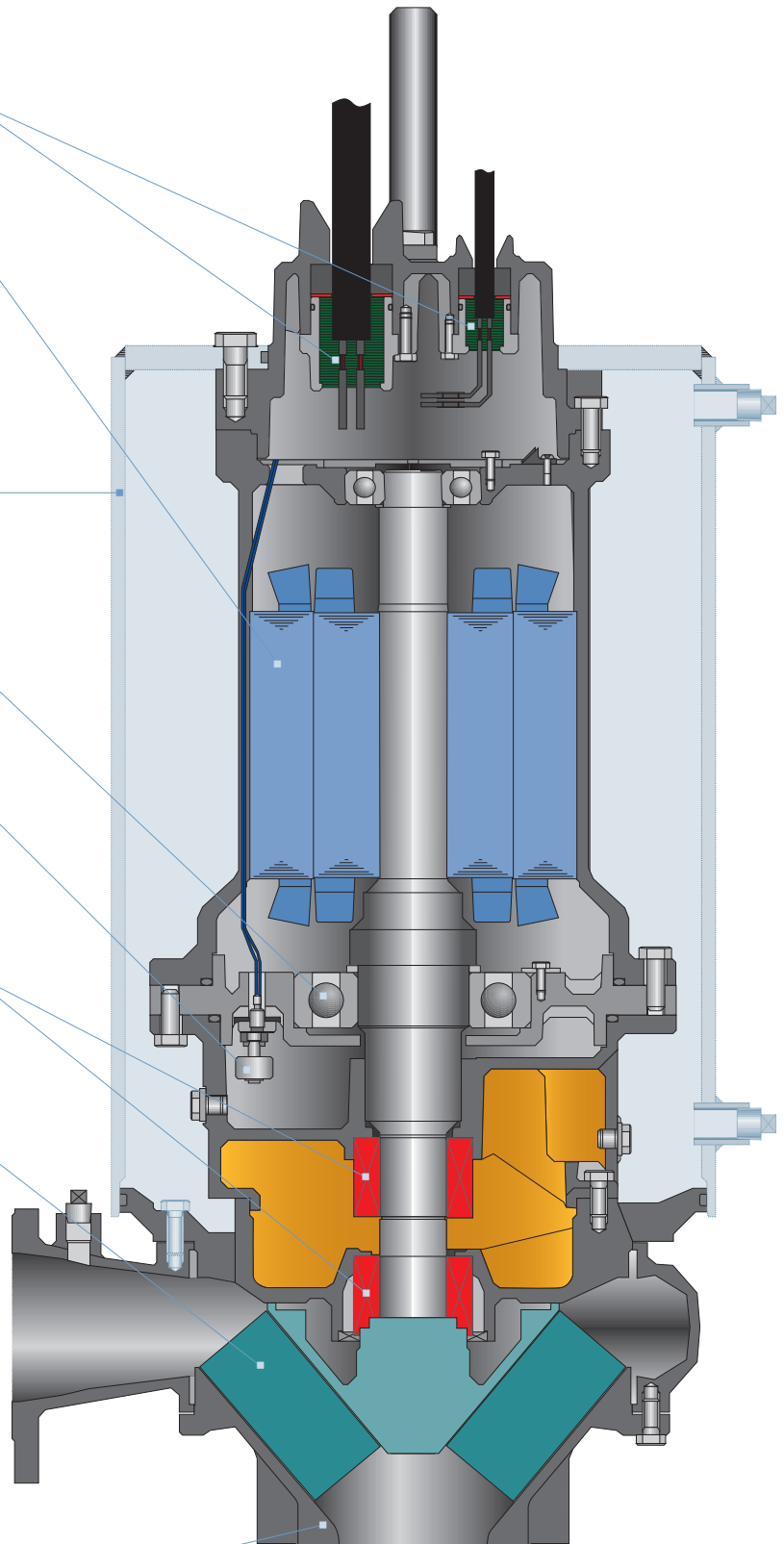
Model DLFU, DLKFU, DDLFU

Features

- **Watertight cable entry system** prevents capillary action and protects against moisture; reduces maintenance costs
- **Heavy duty, high efficiency, air filled** motor dissipates heat easily; thermal protection in each phase of windings protects; operates cooler with higher efficiencies; longer service life with lower operating costs
- **Self cooling jacket** (Model DDLFU) eliminates the need for external pumping devices or special heat transfer fluids; offers simplicity and high reliability by effectively dissipating heat in dry pit applications only
- **Single and double row thrust bearings** carries thrust loads with L-10 life of 60,000 hours; ensures long, dependable operation and lowers maintenance costs
- **Mechanically actuated float switch** provides early warning of mechanical seal failure; avoids costly motor repairs
- **Double mechanical seals – silicon carbide lower seals, carbon/ceramic upper** – hard faced upper and lower seals operate in an oil bath; providing longer service life and lower maintenance costs
- **High efficiency impellers** pass large solids with high outputs and reduces power consumption; impellers are optimized for hydraulic coverage; lowers operating costs

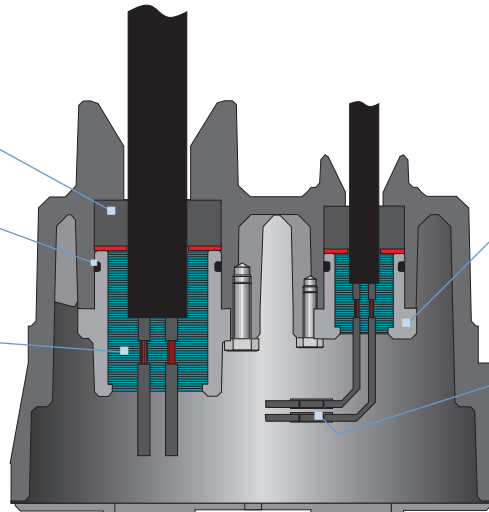
Model DLKFU series pumps are designed to tackle clogging challenges with enhanced passage capabilities for handling of fibrous waste. The design features address the most common reasons for clogging caused by fibrous materials: Reduces material caught on the vane tips, increases inlet pressure which keeps debris moving instead of recirculating and E-eliminator groove disrupts the accumulation of fibrous debris

- **Replaceable wear components** maintains working clearances while reducing casing and volute costs



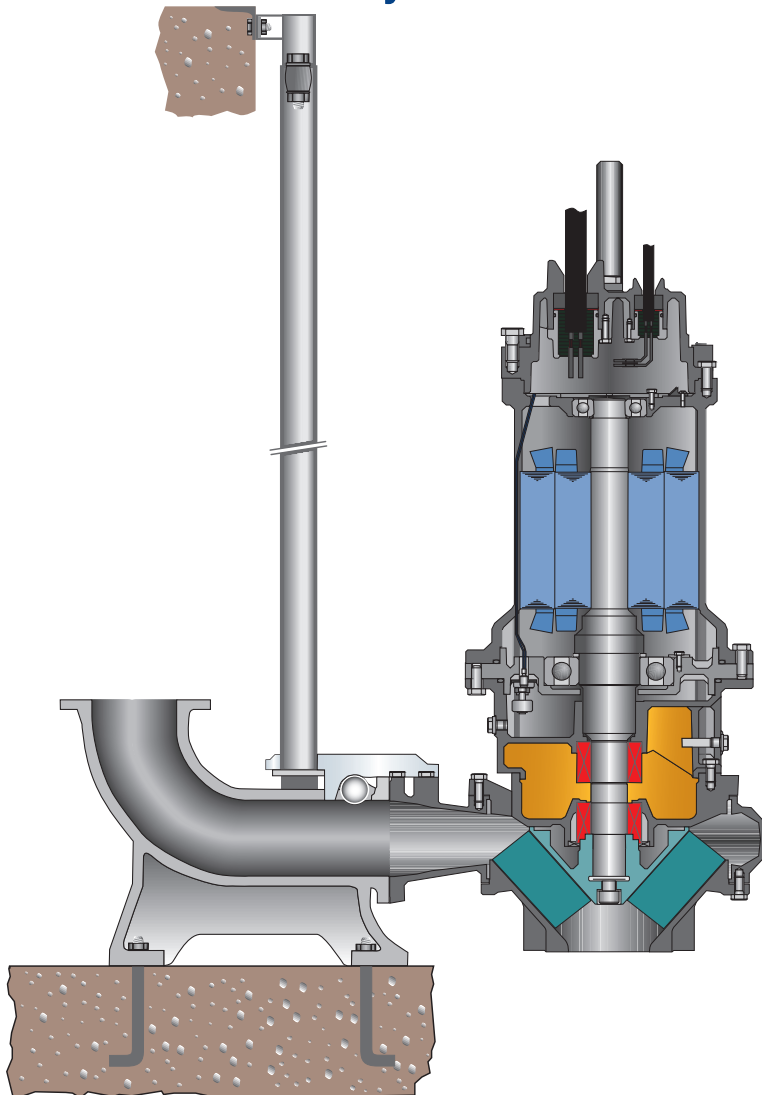
Cable Entry System

- Primary seal – grommet (NBR)
- Secondary sealing – O-rings (NBR)
- Epoxy resin – prevents capillary action
- Cable gland (grey cast iron)
- Solid joint butt connector (copper)



Note: Entry system is the same for both power and control cables.

QDC & Slide Rail System



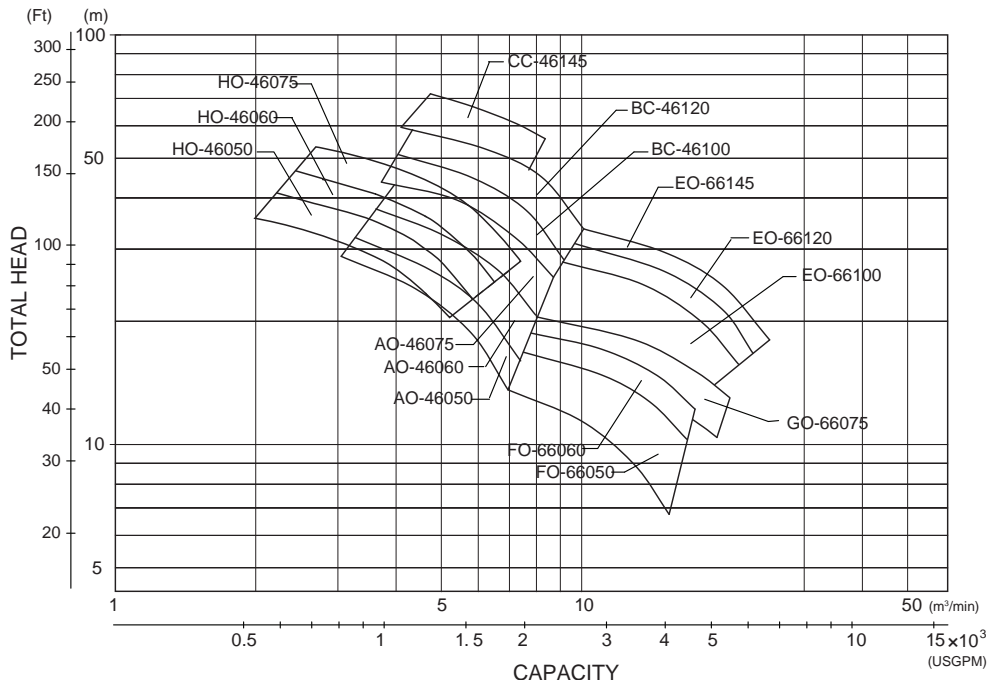
Model DSC4, DSCA4, DSC



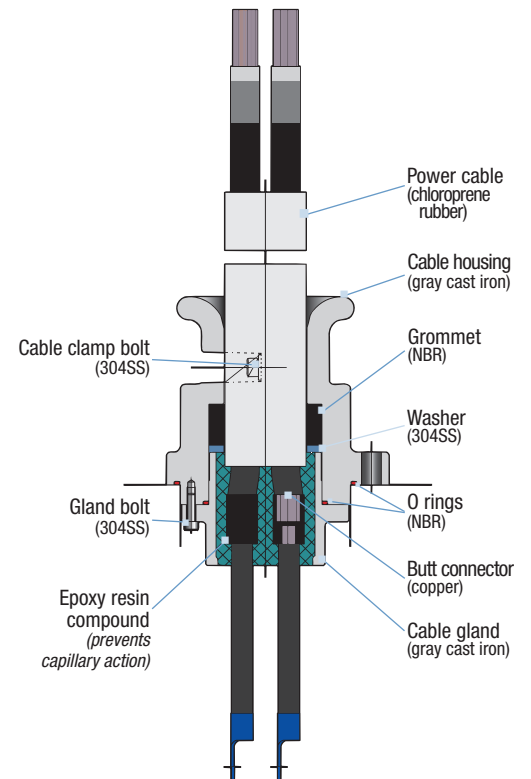
Standard Specifications

Design	Discharge	6 to 24 inch
	Horsepower	50 to 500
Materials	Capacity	530 to 35000 GPM
	Total head	23 to 300 feet
	Max. Liquid temp.	104°F/40°C
	Casing	Cast Iron
	Impeller	Cast Iron
	Casing Ring	420 Stainless Steel (enclosed Impeller models)
Construction	Shaft	420 Stainless Steel
	Motor Frame	Cast Iron
	Cooling Jacket	Steel
	Fastener	304 Stainless Steel
	Impeller Type	Semi-open Enclosed <i>Optional:</i> Impeller Ring (enclosed impeller models)
	Shaft Seal	Cartridge type duplex mechanical seals in tandem arrangement Material – Upper: Carbon/Ceramic Material – Lower: Silicon Carbide/Silicon Carbide <i>Optional materials available, consult factory.</i>
	Bearing	Grease Lubricated Ball Bearing
	Motor	Class H insulation Air filled water tight with cooling jacket 15 starts/hour, 1.15 Service Factor <i>Optional:</i> FM explosion proof, Class 1, Group C, D Built-in winding temperature detector Built-in float type leak detector <i>Optional:</i> Temperature detector for thrust bearing
Mounting method	Wet Pit:	Quick discharge connector (QDC)
	Dry Pit:	with baseplate (DSCA4)
Accessories	50 ft (15.24 m) water tight rubber insulated flexible cable <i>Optional cable lengths available, consult factory.</i>	

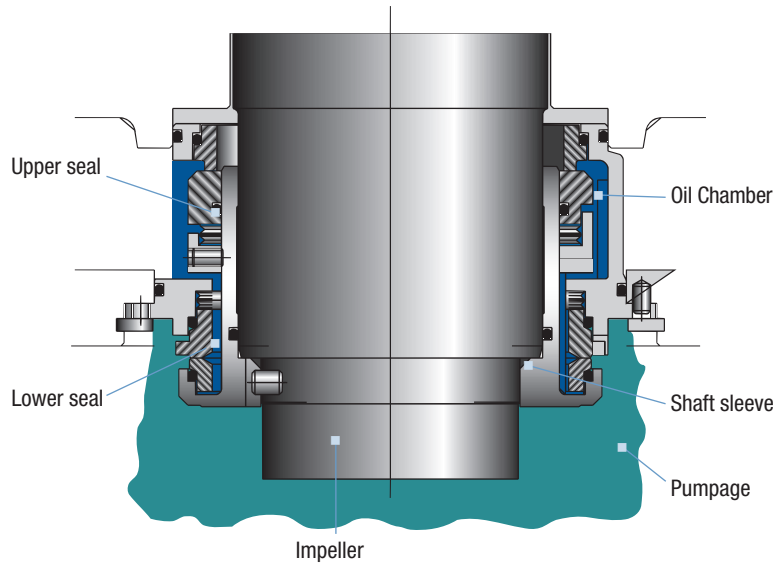
DSC4, DSCA4 selection chart



Cable Entry Detail

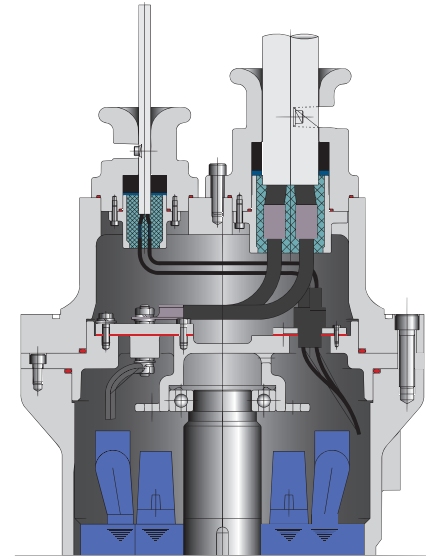


Double Mechanical Seal Detail

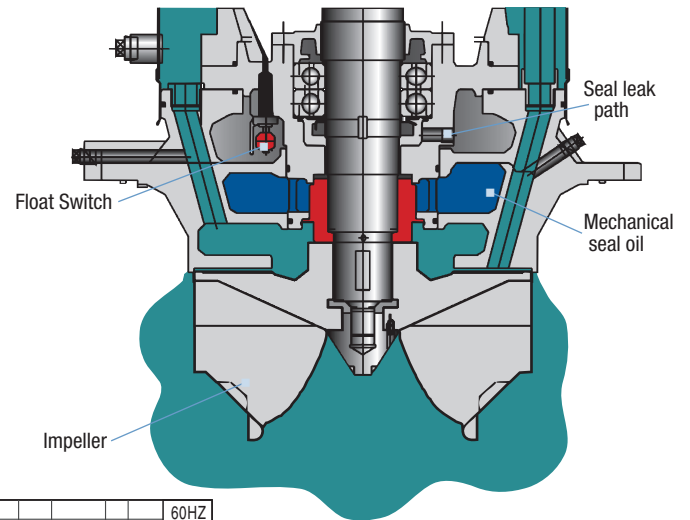


- Upper seal O rings – NBR
 - Upper seal faces – Carbon vs Ceramic
 - Lower seal O rings – Viton
 - Lower seal faces – Silicon carbide vs Silicon carbide
 - Seal springs – 304SS
 - Shaft sleeve – 304SS
- Optional seal face materials available*

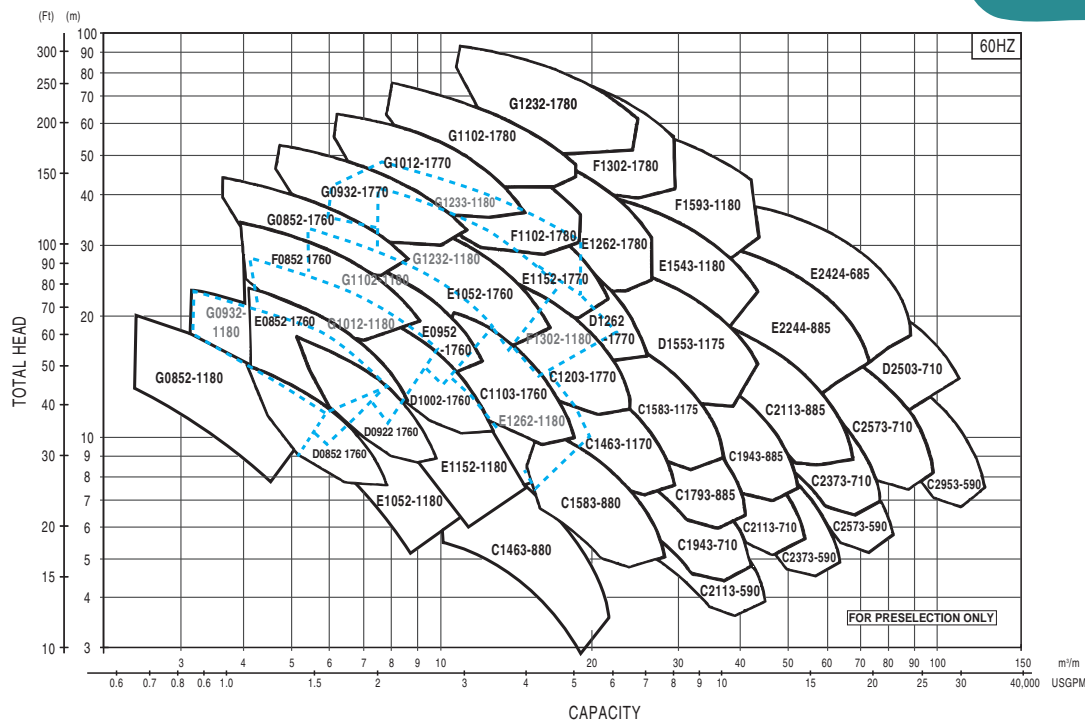
Sealed Junction Area



Leak Detection Area



DSC3, DSCA3 selection chart



Accessories

EBARA provides complete solutions for a wide range of applications across various industries and offer additional accessories from control panels to drives, basin packages, lifting chains, adapters, guide brackets, hoists and hatch covers for water and waste water treatment applications submittal and bid packages.

Control Panels

Features

- Basic, standard or custom
- All Nema rated enclosures; Components are UL Listed
- IEC or Nema starters
- Separate alarm and control circuits
- Build to engineers' or customer specifications
- Build to customer specifications

Applications

- Industrial/Municipal
- Water
- Wastewater



Single/Multiple pump flow controller

Features

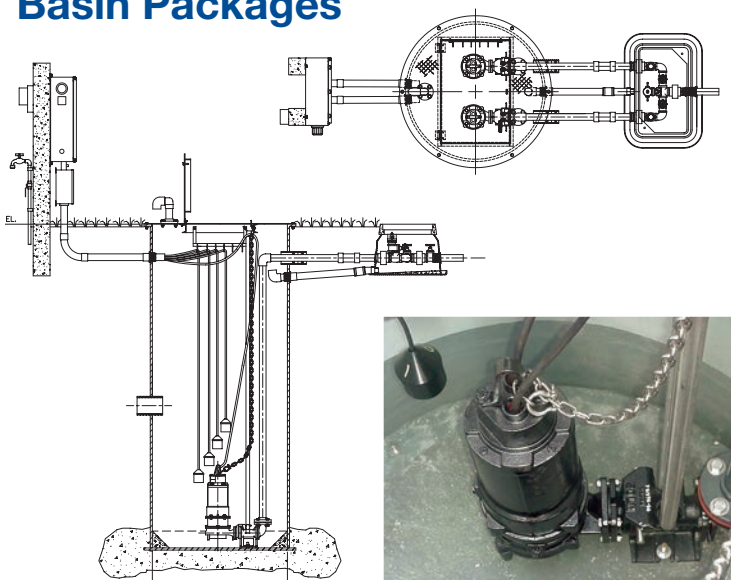
- Built-in SCADA software - program, startup, system trending, status readout and diagnose
- Pump applications simulator - simulate drive parameters
- Pump specific operator keypad
- Digital output monitoring
- Simplex - simple setup
- Duplex/Triplex - Automatically starts and stops lead/lag pumps on demand
- Maintains constant system pressure
- Built to UL 508A Standards
- Serial communications options

Applications

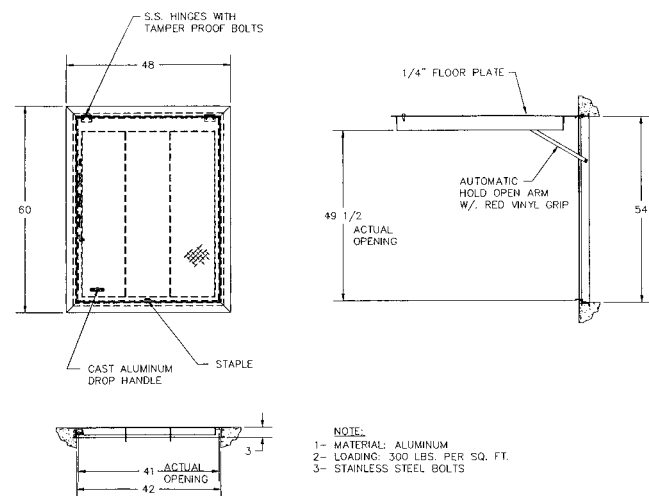
- Booster pump systems
- Commercial/Residential Irrigation
- Submersible deep wells
- Fluid storage tanks
- Metering pumps
- Sludge pumps
- Settling ponds



Basin Packages



Hatch Covers





The EBARA Group is constantly thinking of what will be required in the future and is seeking to accurately grasp the current and future needs of its customers, while continuing to pursue the development of superior products in all its businesses and by providing high quality support and services.



Wastewater Experience

EBARA blends superior engineering expertise with state of the art production techniques to produce pumps of unsurpassed quality and long life. EBARA remains the largest single brand pump company in the world and strives to develop high quality, efficient products and key system components for addressing improvements and solutions in the fields of water supply, energy and environmental issues. EBARA provides a full range of services from engineering, project design and construction to operation and maintenance for solid waste treatment, water treatment, gasification, incineration and other facilities.

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